UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/719,270 | 11/21/2003 | Maria Adamczyk | 9400-49 | 2793 |

39072 7590 09/11/2008

MYERS BIGEL SIBLEY & SAJOVEC, P.A.
P.O. BOX 37428
RALEIGH, NC 27627

| EXAMINER | |
|---|---|
| MUL GARY | |
| ART UNIT | PAPER NUMBER |
| 2616 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 09/11/2008 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/719,270 | ADAMCZYK ET AL. | |
| | Examiner | Art Unit | |
| | GARY MUI | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *03 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,3-5,7-24,26-29,31-34,37,38,40 and 41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7-24,26-29,31-34,37,38,40 and 4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1, 3 – 5, 7 – 24, 26 – 29, 31 – 34, 37, 38, 40 and 41 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 4, 5, 7, 17, 21 – 24, 26 - 28, 31 – 34, 37, 38, 40, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Brabson et al. (US 2002/0046284 A1; hereinafter "Brabson").

For claims 1 and 24, Brabson teaches for each of a plurality of applications of a service provider which will communicate across the communication network, requesting a level of network communication QoS using QoS requests froth the service provider (see paragraph 0041 and 0043; application programs communicates over a communication network and the sendmsg () obtains applications information that provides the service level from which a quality level may be established for the data transmission); allocating levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests (see paragraph 0044; assigning QoS level for data transmission associated with a request for data transmission); and managing network communication QoS that is

provided by a wide area network to network communications by from the individual applications of the service provider in response to the network communication QoS levels allocated to the respective individual applications (see paragraph 0042, controlling the QoS of a transaction).

For claim 3, Brabson teaches requesting a level of network communication QoS using QoS requests from the service provider comprises generating a plurality of QoS requests, wherein each of the QoS requests is for a different one of the applications of the service provider (see paragraph 0041).

For claim 4, Brabson teaches allocating levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating a level of network communication QoS to a particular one of the applications of the service provider in response to a QoS request for the particular application (see paragraph 0043).

For claims 5 and 26, Brabson teaches allocating levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating a network capacity level for communications by a particular one of the applications of the service provider in response to a QoS request for the particular application; and managing network communication QoS comprises constraining network communications by the particular one of the applications of the service provider to the allocated network capacity level (see paragraph 0073).

For claims 7 and 27, Brabson teaches allocating levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests

comprises allocating a communication priority level for communications through the wide area network from a particular one of the applications of the service provider through the communication network in response to a QoS request for the particular application; and managing network communication QoS comprises prioritizing network communications by the particular one of the applications of the service provider in response to the allocated communication priority level (see paragraph 0053).

For claim 17, Brabson teaches communicating the QoS request in a data packet through the communication network; and evaluating the QoS service request based on information in a known filed in the data packet (see paragraph 0052).

For claim 21, 32, and 38, Brabson teaches allocating the requested level of network communication QoS to the service provider comprises notifying a broadband remote access server of the levels of network communication QoS allocated to particular applications of the service provider (see paragraph 0044).

For claim 22, 33, and 37, Brabson teaches allocating the requested level of network communication QoS to the service provider comprises notifying a routing gateway of the levels of network communication QoS allocated to particular applications of the service provider (see paragraph 0036).

For claim 23, Brabson teaches notifying the individual applications of the service provider of the levels of network communication QoS that have been allocated thereto (see paragraph 0041).

For claim 28, Brabson teaches the QoS network management when executed by a processor is configured to shape information flow from a particular one of the applications of the service

provider through the communication network in response to the QoS request for the particular application (see paragraph 0036).

For claim 31, Brabson teaches identify an application program of the service provider that is associated with the QoS request, and is configured to evaluate the QoS request based on the identified application program (see paragraph 0041).

For claim 34, Brabson teaches a service provider; an application framework infrastructure; an access network communicatively coupling the service provider and the application framework infrastructure; a plurality of routing gateways; and a wide area network that communicatively couples the application framework infrastructure and the plurality of routing gateways, wherein the service provider is configured to request a level of network communication QoS for each of a plurality of applications of the service provider which will communicate across the wide area network using QoS requests from the service provider, wherein the application framework infrastructure is configured to allocate levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests, and wherein the routing gateways manage network communication QoS that is provided to network communications through the wide area network by individual ones of the applications of the service provider in response to the allocated levels of network communication QoS (see paragraph 0041 – 0044 and figure 3; application programs communicates over a communication network and the sendmsg () obtains applications information that provides the service level from which a quality level may be established for the data transmission; assigning QoS level for data transmission associated with a request for data transmission; and controlling the QoS of a transaction).

For claim 40, Brabson teaches allocating a different network communication QoS level to each one of a plurality of applications of a service provider (see paragraph 0044; assigning QoS level for data transmission associated with a request for data transmission); and managing network communication QoS that is provided by a wide area network to network communications from the individual ones of the applications of the service provider in response to the network communication QoS levels allocated to the respective individual applications (see paragraph 0042, controlling the QoS of a transaction).

For claim 41, Brabson teaches allocating a different network communications QoS level to each one of a plurality of IP address associated with different applications of a service provider (see paragraph 0044; assigning QoS level for data transmission associated with a request for data transmission, various applications will have different IP address); and managing network communication QoS that is provided to network communications by individual ones of the applications in response to the network communication QoS levels allocated to the associated IP addresses (see paragraph 0042, controlling the QoS of a transaction).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 8 – 10 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson in view of Raisanen et al. (US 2003/0152028 A1; hereinafter "Raisanen").

For claims 8 – 10, Brabson teaches all of the claimed subject matter with the exception of allocating levels of network communications QoS to individual ones of the applications of the service provider in response to the QoS requests comprises allocating an allowed information delay level, information loss rate, or allowed packet size for communications through the communication network by a particular one of the applications of the service provider in response to a QoS request for the particular application and managing network communication QoS comprising managing network communications by the particular one of

the applications of the service provider in response to the allocated allowed information delay level, information loss rate, or allowed packet size. Raisanen from the same field of endeavor teaches the measurement profile determines for example the QoS parameters (such as delay, jitter, packet loss, packet loss correlation, bandwidth) the values of which the measuring host A, C, B, D is to calculate and how it will deliver to the result to the QM (see paragraph 0040). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to allocate and manage the information as taught by Raisanen into the resource management system of Brabson. The motivation for doing this is to provide for a reliable system by providing all necessary information to meet requirements.

For claim 12, Brabson teaches all of the claimed subject matter with the exception of allocating levels of network communication QoS to individual ones of the applications of the service provider in response to the QoS requests comprises modifying a profile of information that is communicated through the communication network by a particular one of the applications of the service provider in response to a QoS request for the particular application. Raisanen from the same field of endeavor teaches the measurement profile determines for example the QoS parameters (such as delay, jitter, packet loss, packet loss correlation, bandwidth) the values of which the measuring host A, C, B, D is to calculate and how it will deliver to the result to the QM (see paragraph 0040). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the QoS profile as taught by Raisanen into the resource management system of Brabson. The motivation for doing this is to provide for a reliable system by providing all necessary information to meet requirements.

***Claim Rejections - 35 USC § 103***

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson in view of Waclawsky et al. (US 6,628,610 B1; hereinafter "Waclawsky").

For claim 11, Brabson teaches all of the claimed subject matter with the exception of allocating a Maximum Transmission Unit size for packets communicated through a network based on the allocated level of QoS; and managing network communication QoS comprises constraining packet size in network communications by the particular one of the applications of the service provider in response to the allocated Maximum Transmission Unite size. Waclawsky from the same field of endeavor teaches changing the size of the packets in the flow for the communication device (see paragraph 4 lines 55 – 66). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to adjust the packet size as taught by Waclawsky into the resource management system of Brabson. The motivation for doing this is to have a lower the system complexity.

***Claim Rejections - 35 USC § 103***

9. Claims 13 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson in view of Pugaczewski (US 6,643,266 B1).

For claim 13, Brabson teaches all of the claimed subject matter with the exception evaluating at a network service manager the QoS that is available in the communication network; and allocating a level of network communication QoS to a particular one of the applications of the service provider in response to a QoS request for the particular application and the evaluation of the QoS available in the communication network. Pugaczewski from the same field of

endeavor teaches a qualification on the line to determine the ability to support the service (see column 4 lines 22 – 41). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to determine the ability of the line as taught by Pugaczewski into Brabson. The motivation for doing this is to provide an efficient system by not disappointing the users during poor conditions.

For claim 14, Pugaczewski teaches the network service manager comprises DSL service manager (see column 4 lines 22 – 41).

For claim 15, Pugaczewski teaches evaluating at a network service manager the QoS available in the network comprises validating the QoS request for the particular application of the service provider (see column 4 lines 22 – 41).

For claim 16, Pugaczewki teaches validating the QoS request comprises comparing the QoS request to a DSL session data store (see column 4 lines 22 – 41).

***Claim Rejections - 35 USC § 103***

10. Claims 18 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson in view of Katsube et al. (US 2004/0095914 A1; hereinafter "Katsube").

For claim 18, Brabson teaches all of the claimed subject matter with the exception of identifying a protocol ID in the known field of the data packet; and evaluating the QoS request based on the identified protocol ID. Katsube from the same field of endeavor teaches identifying and evaluating the QoS based on the protocol field (see paragraph 0043 lines 10 – 19). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the protocol field for QoS as taught by Katsube into the resource

management system of Brabson. The motivation for doing this is to have a more reliable system.

For claim 19, Brabson teaches all of the claimed subject matter with the exception of identifying a source address and/or a destination address in the known field of the data packet; and evaluating the QoS request based on the identified source address and/or the destination address. Katsube from the same field of endeavor teaches the QoS classification looks at the header information which includes source and destination address (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube into the resource management system of Brabson. The motivation for doing this is to have a more reliable system.

For claim 20, Brabson teaches all of the claimed subject matter with the exception of identifying a source port number and/or a destination port number in the known field of the data packet; and evaluating the QoS request based on the identified source port number and/or a destination port number. Katsube from the same field of endeavor teaches the QoS classification looks at the header information, which includes port number (see paragraph 0043 lines 9 – 11). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to evaluate QoS based on packet information as taught by Katsube into the resource management system of Brabson. The motivation for doing this is to have a more reliable system.

***Claim Rejections - 35 USC § 103***

11. Claim 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brabson in view of Goyal et al. (US 6,999,474 A1; hereinafter "Goyal").

For claim 29, Brabson teaches all of the claimed subject matter with the exception of evaluating at a network service manager the QoS available in the network comprises validating the QoS request for the particular application of the service provider. Goyal from the same field of endeavor authenticating the signaling messages and authorize the request for services (see column 5 lines 25 – 31). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to validate the request as taught by Goyal into the resource management system of Brabson. The motivation for doing this is to have a more secure system.

***Conclusion***

12. **Examiner's Note**: Examiner has cited particular paragraphs or columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GARY MUI whose telephone number is (571)270-1420. The examiner can normally be reached on Mon. - Thurs. 9 - 3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2616

/Gary Mui/
Examiner, Art Unit 2616
09/09/2008